

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

OMB APPROVAL

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|                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Name and Address of Reporting Person *<br><u>LANPHIER EDWARD O II</u><br><br>(Last) (First) (Middle)<br><u>C/O SANGAMO BIOSCIENCES INC.,</u><br><u>POINT RICHMOND TECH CNTR, 501 CANAL</u><br><u>BLVD</u><br><br>(Street)<br><u>RICHMOND</u> <u>CA</u> <u>94804</u><br><br>(City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol<br><u>SANGAMO BIOSCIENCES INC [ SGMO ]</u><br><br>3. Date of Earliest Transaction (Month/Day/Year)<br><u>03/17/2014</u><br><br>4. If Amendment, Date of Original Filed (Month/Day/Year) | 5. Relationship of Reporting Person(s) to Issuer<br>(Check all applicable)<br><br><input checked="" type="checkbox"/> Director 10% Owner<br><br><input checked="" type="checkbox"/> Officer (give title below) Other (specify below)<br><br><u>President &amp; CEO</u><br><br>6. Individual or Joint/Group Filing (Check Applicable Line)<br><br><input checked="" type="checkbox"/> Form filed by One Reporting Person<br><br>Form filed by More than One Reporting Person |
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Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) |   | 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5) |            |                          | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Beneficial Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|----------------------------------------------------|--------------------------------|---|-------------------------------------------------------------------|------------|--------------------------|-----------------------------------------------------------------------------------------------|----------------------------------------------------------|----------------------------------------------|
|                                 |                                      |                                                    | Code                           | V | Amount                                                            | (A) or (D) | Price                    |                                                                                               |                                                          |                                              |
| Common Stock                    | 03/17/2014                           |                                                    | M                              |   | 50,000                                                            | A          | \$5.19                   | 345,000 <sup>(1)</sup>                                                                        | D                                                        |                                              |
| Common Stock                    | 03/17/2014                           |                                                    | S <sup>(2)</sup>               |   | 50,000                                                            | D          | \$23.2186 <sup>(3)</sup> | 295,000 <sup>(1)</sup>                                                                        | D                                                        |                                              |
| Common Stock                    | 03/10/2014                           |                                                    | G                              |   | 4,000                                                             | D          | \$0.00                   | 1,591,054                                                                                     | I                                                        | By Trust <sup>(4)</sup>                      |
| Common Stock                    |                                      |                                                    |                                |   |                                                                   |            |                          | 100,000                                                                                       | I                                                        | By Trust for Daughter <sup>(5)</sup>         |

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) |   | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 6. Date Exercisable and Expiration Date (Month/Day/Year) |                 | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|--------------------------------------------|--------------------------------------------------------|--------------------------------------|----------------------------------------------------|--------------------------------|---|----------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------|
|                                            |                                                        |                                      |                                                    | Code                           | V |                                                                                        | Date Exercisable                                         | Expiration Date |                                                                                   |                                            |                                                                                                    |                                                           |                                                        |
| Employee Stock Option (Right to Buy)       | \$5.19                                                 | 03/17/2014                           |                                                    | M                              |   | 50,000                                                                                 | <sup>(6)</sup>                                           | 12/19/2014      | Common Stock                                                                      | 50,000                                     | \$0.00                                                                                             | 0                                                         | D                                                      |

Explanation of Responses:

1. Includes 100,000 shares, 120,000 shares, and 75,000 shares subject to restricted stock units granted on December 8, 2011, December 6, 2012, and December 12, 2013, respectively, that will be issued as such units vest in accordance with their terms.
2. The sales reported in this Form 4 were effected pursuant to a Rule 10b5-1 trading plan adopted by the Reporting Person on November 1, 2013.
3. The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$22.99 to \$23.50, inclusive. The Reporting Person undertakes to provide to Sangamo BioSciences, Inc., any security holder of Sangamo BioSciences, Inc., or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within such range.
4. These shares are held in the Lanphier Trust.
5. The Reporting Person disclaims beneficial ownership of the shares held by his child and this report shall not be deemed to be an admission that Mr. Lanphier is the beneficial owner of such securities for purposes of Section 16 or for any other purpose.
6. All shares underlying this option are vested and immediately exercisable, and such option will expire on December 19, 2014.

Remarks:

/s/ Florence Tam, attorney-in-fact 03/17/2014

\*\* Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

\* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.